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DECEPTIVE LOGISTICS AT THE OPERATIONAL LEVEL OF WAR(U)  
ARMY COMMAND AND GENERAL STAFF COLL FORT LEAVENWORTH KS  
SCHOOL OF ADVANCED MIL ITARY STUDIES L D HARMAN

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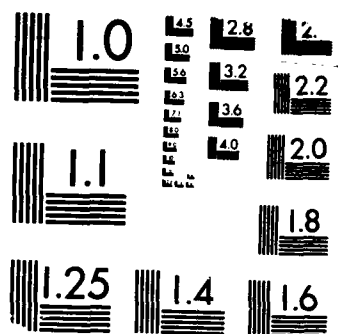
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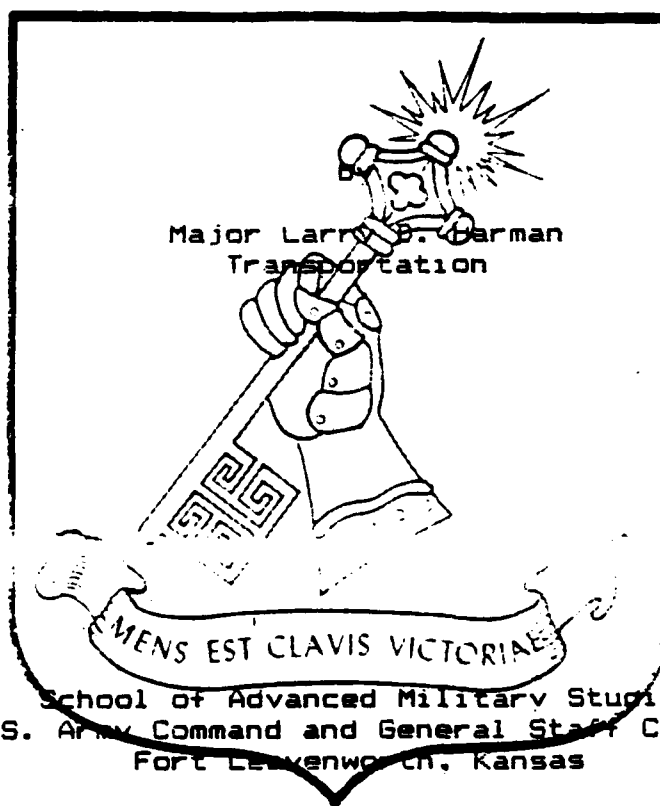


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AT THE OPERATIONAL LEVEL OF WAR

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provided in the form of vignettes.

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# ABSTRACT

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Larry D. Harman, USA, 56 pages.

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# DECEPTIVE LOGISTICS AT THE OPERATIONAL LEVEL OF WAR

## I. Introduction

Only operational commanders can make the microworld of immediate tactical combat meaningful in the macroenvironment of long-term strategy. To accomplish this, they must orchestrate tactical battles and engagements as part of major operations and campaigns at the operational level to create the military conditions that ultimately achieve strategic goals. (1)

According to Army Field Manual 100-5, Operations, operational art is defined as "...the employment of war or theater forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations... No particular echelon of command is solely or uniquely concerned with operational art..."(2)

Among the numerous considerations which the operational commander and planner must address, two key considerations are deception and sustainment operations. "Battlefield deception" operations are measures or actions conducted by commanders at theater echelons and below to mislead or confuse the enemy decision maker. This is accomplished by distorting, concealing, or falsifying indicators of friendly intentions, capabilities, or dispositions which result in the enemy taking operational actions favorable to friendly plans and operations.(3) Battlefield deception seeks to manipulate the enemy's perception of the theater or area of operations. Deception is more likely to succeed when confirming an enemy predisposition rather than when it seeks to alter it.(4) Ideally, the enemy is forced into a position where he merely reacts inevitably late, while well on the road to defeat.(5) This psychologically dislocates the enemy and

induces a synergistic paralysis which contributes immeasurably to our success at the operational level.

The second key operational consideration is sustainment which comprises those logistical and support activities required to sustain campaigns and major operations within a theater of operations. Operational sustainment extends from the theater sustaining base or bases which link strategic to theater support functions, to the forward combat service support (CSS) units and facilities organic to major tactical formations.(6) At the operational level, a revelation occurs in that the familiar distinction between "logistics" and "operations" begins to erode; in fact, logistics is operations at the level of campaign planning and will be the principal preoccupation of the commander and his staff.(7) James A. Huston, author of The Sinews of War: Army Logistics 1775-1953, makes this clear:

In short, logistics is the application of time and space factors to war. It is the economics of warfare and it comprises, in the broadest sense, the three big M's of warfare - materiel, movement, and maintenance. If international politics is the art of the possible, and war is its instrument, logistics is the art of defining and extending the possible. It provides the substance that physically permits an army to live and move and have its being. (8)

Can these two key operational areas - logistics and deception - be employed in a mutually supporting manner to the benefit of the entire operational force? One can argue that they must at the operational level. Since operational intentions are the central focus of intelligence efforts at this level, the key indicators on which the enemy will focus are those which reveal the future pattern of friendly operations. That pattern is likely to be portrayed by the movement of

forces and by the preliminary sustainment arrangements undertaken to support those forces.(9) It seems logical to assume that a well executed deception operation incorporating an appropriate logistical portrayal will convince the deception target to follow our desired expectations whereas the same enemy commander may balk if our logistical posture fails to support what he sees happening. In other words, the employment of deceptive logistics refers to the exploitation of supply, maintenance, transport, and other CSS activities with the distinct purpose of contributing to an operational headquarters overall deception plan. For this reason, planners of campaigns and major operations must include or at least consider the use of logistics in deception operations.

This employment of deceptive logistics presents to the operational commander both opportunity and dilemma. For instance, logistical arrangements can magnify the effects of surprise on an enemy force by allowing a more rapid exploitation and transition to pursuit during an offensive operation: however, surprise and security for the entire operation can be jeopardized by dissemination of "deception" missions to numerous supporting organizations. Faced with the opportunities and dilemmas associated with deceptive logistics, the operational commander and his staff must weigh the benefits and associated risks, take steps to minimize the uncertainties, and direct the execution of the deception plan while monitoring its progress.

There are various ways to execute logistical activities with the intent of deceiving an adversary. These options are consolidated into five generic categories - location, time, size, method, and intention. In practice, the commander may choose logistically to deceive his foe

with a combination. For instance, the operational commander may select an unexpected time and location to establish a logistical support area therefore confusing the enemy commander as to his intentions. However, attempting to deceive an adversary by logistical means in isolation is foolhardy; it must be emphasized that logistical deception is only a means to an end and not an end in itself.

Deception planners must consider the integration of various U.S. ground, air, and naval forces; communications elements; engineer, military police, military intelligence, civil affairs, and logistical units as well as allied and host nation organizations so that the deception story is convincing. The payoff occurs when the enemy either alters or fails to alter his disposition of forces as a result of his forced miscalculations resulting in a positive friendly effect on the outcome in battle, major operation, or campaign. (10)

With this in mind, one must ponder whether or not a coherent deception plan can be formulated undergirded by creative logistical options that will allow the operational commander to deceive an alert adversary. Can the commander use his available and frequently austere logistics as an instrument of deception without jeopardizing the destruction of his sustainment resources and therefore the effectiveness of his entire force? If the answer is yes, what calculated risks and logistical ploys are realistic? In other words, can the employment of logistics contribute to deception efforts at the operational level of war and, if so, how?

With the purpose of the monograph established, historical examples of deceptive logistics in the twentieth century are examined in Section II. The opportunities and dilemmas associated with

deceptive logistics are assessed in Section III followed by a comprehensive discussion in Section IV of deceptive techniques that are available to the operational commander. Finally in Section V, the research question is revisited with further amplification. In an effort to clarify some major points, graphic aids are provided.

## II. Historical Perspective

Seception at the operational level of war has never been a simple, single-level, one-shot operation upon which ride[s] all the commander's hope for success. If historical examples are any guide operational deception is better characterized as a series of multi-layered supporting deception operations, each of which must be carefully integrated, deconflicted and orchestrated in the dimensions of time, space, resources, and aim. (11)

Twentieth century military history reveals instances where operational commanders resorted to deceptive logistics to gain advantage over their enemies regardless of which side was stronger or which side was defending or attacking. Apparently, the exigencies of desperate survival stimulated the military leaders to seek unorthodox solutions to their warfighting problems. The ensuing operational successes tend to verify the utility of deception and its subset, deceptive logistics. (12)

World War I reveals instances of deception incorporating logistical ploys. For example, the Brusilov Campaign in the summer of 1916 contained rather elementary but highly effective logistical arrangements that permitted Brusilov, a Russian front commander, to deceive and to overwhelm his powerful Austro-Hungarian and German enemies. Brusilov ordered his handpicked staff and his subordinate commanders to prepare for the offensive in a most unorthodox manner by World War I standards. First, he ordered his reserves to move close in to the front lines accompanied by their supporting logistics. Second, he would attack with less artillery ammunition per tube than customary; he felt that normal loads of ammunition were too

cumbersome. Third, Brusilov directed that supplies be equally distributed behind the entire length of his front to prevent road congestion, logistical delays, and enemy identification of his main effort. Fourth, he demanded that all logistical preparations be concealed. Fifth, the attack would be launched all along the front to conceal his main effort. Although these measures may seem obvious today, Brusilov encountered tremendous opposition when he revealed his "Bizarre" plan to adjacent and superior headquarters. After his Russian opposition acquiesced, Brusilov launched his operational offensive and the results were beyond optimistic expectations. Brusilov's forces disrupted the enemy's local and frontal reserves allowing a massive breakthrough. The entire enemy line was caught off guard and forced to withdraw up to forty miles. The remarkable preparation for and execution of the Brusilov Campaign was thorough beyond anything hitherto seen on the stalemated eastern front. Brusilov's thorough preparations which included deceptive logistics led to a rapid and relatively low-cost victory by World War I standards. (13)

On another bogged front in 1917, General Allenby announced his arrival by unloosing a full bag of tricks on the German and Turkish commanders in Palestine; this Third Battle of Gaza shook the German leadership and routed the Turkish Army. (14) How can one operational commander alter so abruptly the course of events in war?

As the commander of the Egyptian Expeditionary Force, Allenby was charged with defeating the German and Turkish forces in what is now called the Final Palestinian and Syrian Campaign of World War I. The initial campaign plan was created by his higher headquarters and given

to Allenby's headquarters for further refinement and subsequent execution. After some personal deliberation, Allenby sacked the plan and developed his own based on deception. Logistical deception efforts were key in that that Allenby ordered new camps and support areas to be pitched in the Jordan Valley to delude the enemy. He had thousands of dummy horses fabricated to fill abandoned horse lines. All over Arab lands, his agents spread news that vast quantities of forage would soon be bought and shipped to the city of Amman away from the objective area. Just prior to his main thrust, he moved a subsidiary force to secure a water source away from the actual axis of advance; this deceived the enemy into thinking that a major action would occur at the water source. As a result of the successful ruses, the sum total completely surprised the enemy. Allenby's multi-national force was victorious at the Third Battle of Gaza which led to the Final Palestinian and Syrian Campaign triumph. Here again, deceptive logistics contributed to the overall deception effort and to victory. (15)

Allenby of Britain and Brusilov of Russia stand out in World War I history as great operational commanders. Each confronted the enemy with unorthodox plans and subsequently achieved victory. Both were self-confident and both employed logistical deception as an integral part of their campaign plans. Apparently, they both could see a reasonably accurate picture of the future and were able to position forces as well as apportion and allocate resources to strike rapidly as anticipated opportunities presented themselves. (16)

There are a number of occasions during World War II when the employment of deceptive logistics contributed to operational level



success. General O'Connor, the commander of the British 13<sup>th</sup> Corps in North Africa, directed his tanks with exhaust baffles removed to roar up and down outside Bardia on the 2<sup>nd</sup>/3<sup>rd</sup> of January, 1941, to delude the Italians over the size of his attacking force. Apparently, this maintenance modification paid dividends. (17)

Soon after General Rommel arrived in North Africa in 1941, he ordered his troops to manufacture hundreds of dummy tanks from wood and cardboard; some were stationary and others were mounted on ordinary Volkswagens. Enemy planes were allowed to photograph the "tanks" resulting in enemy radio messages reporting numerous German tanks in equipment staging areas. With the intent of displaying greater armor strength than was actually on hand, Rommel's deception worked. (18)

The British again employed deceptive logistics during Operation CRUSADER in the fall of 1941 by constructing a fake railhead some ten miles ahead of the actual railhead. (19) The motive was to reduce the vulnerability of the logistical node by misleading the enemy.

Logistics in the broadest sense can be an operational objective and taken by deception. For instance, in January of 1941, Rommel tricked both Ritchie and Auchinleck into moving their armor to the east near Mechili thus exposing Benghazi and the 4<sup>th</sup> Indian Division. Displaying his characteristic agility, Rommel changed direction, lunged to the coast, and cut off the Indians. Benghazi fell to Rommel on the 29<sup>th</sup> of January, 1942, with enormous quantities of sorely needed stores and petroleum built up for the British invasion of Tripolitania. As for Rommel, he had "no intention of allowing good opportunities to slip by unused". (20)

In October of 1942, the British established fake pipelines and supply dumps for fuel, ammunition, and food in the vicinity of El Alamein.(21) Once again, the motive was to reduce the vulnerability of actual stocks by confusing the enemy.

The Russians became quite proficient at deception and especially logistical deception in World War II. For example, General Vatutin, the Voronezh Front commander, conducted a special diversionary operation with the Thirty-Eighth Army in the Sudza area around Kursk in the summer of 1943. He establish false unit concentrations augmented by seven radio stations giving the impression that large formations were in the area. Trains were sent daily to Lokinskaya station, ten miles north of Sudza, where dummy tanks and empty ammunition boxes were unloaded from them. The Germans appear to have fallen for the deception along with its logistical portrayal since Lokinskaya was heavily bombed and the two German divisions were shifted to the Sumy area to deal with the expected attack.(22)

U.S. operational level commanders in World War II appear to have had only marginal success with deception of any variety in major operations and campaigns even though no major operation was undertaken without a carefully calculated attempt to deceive the enemy. One could argue that then and now it is unrealistic to expect continuous successes in deception operations; maybe a ten to thirty percent success rate is the most one could rationally hope for.(23)

General MacArthur was a successful operational artist who capitalized on logistical deception in World War II. For instance, his "island hopping" in the Southwest Pacific Theater is a perfect example of where deceptive troop, equipment, and supply movements were

employed. Aware of Japanese intelligence gathering efforts, MacArthur's staff routed ocean convoys in a manner to depict either erroneous, confusing, or actual (but too late) intentions. This kept the Japanese continuously confused as to MacArthur's next move.

In an attempt to capitalize on operational deception, General Bradley's Twelfth Army Group used the "deception expertise" of the 23<sup>rd</sup> Headquarters Special Troops, a specially trained organization of deception technicians. Its performance was good at times; however, blunders occurred regularly. For example, during the Wiltz Operation (4-10 October 1944), the unit was to orchestrate the concealed movement of 5<sup>th</sup> Armored Division to the north while attempting to deceive the enemy into believing that the bulk of the division was still in its original location. Apparently, logistical arrangements were not considered in the deception because the division trains departed its assigned area in a manner that could hardly be concealed from the enemy. Movements of man, equipment, and supplies were made in daylight plus shoulder patches were openly displayed. Overall, the deception was a miserable failure. (24)

U.S. deception efforts, including deceptive logistics, worked neither better nor worse in the Korean War than in World War II. The famous Inchon-Seoul Campaign (Operation CHROMITE) in September-October of 1950 was successful in spite of poor logistical operations security (OPSEC) in Japan; however, the exact date and location of the assault seem to have remained a secret. Apparently, the prudent selection of the port of Inchon for the assault, deceptive operational/logistical feints along the peninsula, CHROMITE's timing (15 September 1950), and enemy dispositions set the stage for operational success. According

to Barton Whaley, an authority on twentieth century deception operations, MacArthur's cover and deception plan at Inchon "was adequate for its purpose, more-or-less effective, but rather unsophisticated and ill-coordinated by contemporary...standards."(25)

In contrast, the Chinese entered the Korean War with emphasis on battlefield deception and especially logistical deception. Logistical movements were concealed by night, camouflage, and march discipline. In fact, one Peoples' Liberation Army force covered 286 miles from Manchuria to the combat zone in less than nineteen days and totally surprised the U.S. intelligence community.(26) Although the Chinese and North Koreans were mainly able to circumvent the obstacle of air interdiction--where the Far East Air Forces (FEAF) had absolute command of the air--by superb organization of a primitive transportation and repair service,(27) much of the credit goes to their imaginative use of camouflage to dissimulate trains, trucks, and porter columns and to simulate "broken" rails, "unrepaired" bridges, and "destroyed" trucks.(28) Here, the enemy succeeded in deceiving a modern American military force.

Moving forward in time to the Six-Day War in June of 1967, a different sort of operational level deceptive technique can be found if one considers an airfield to be a logistics asset as well an operational asset. The Israelis delayed announcing their early capture of El Arish, the main Egyptian air base in the Sinai Peninsula, and pretended it was still in Egyptian hands by flying the Egyptian flag plus maintaining routine control tower radio chatter. Thus, Egyptian pilots continued to land for several hours after its capture while Egyptian authorities had received no warnings that El

Arish was threatened, much less that it had fallen.(29) Not only had the Israelis captured the airfield and aircraft, they also possessed a new forward base in which to airlift sorely needed supplies to continue the war.

What conclusions can be drawn from the past regarding the deceptive use of logistics? First, deception to include logistical deception appears to be an artistic skill transmitted by conscious instruction from master to student.(30) This implies the requirement for operational level logistics planning to have deception training and for "operations-type" planning to have logistics training. Second, deceptions to some generals are considered as "just witty hors d'oeuvres before battle"; that is, deceptions are nice little games to play before battle but are not instrumental to victory.(31) This implies that generals may not even consider logistics as a means of deception or, if they do, logistical deception may be employed only at the beginning of an operation. Third, operational commanders that employ deceptive logistics appear to be creative, imaginative, and unorthodox in their methods.(32) Fourth, these same operational commanders do not sit impotent hoping that by some rare lucky chance the ever-present "fog of war" will strike their foe with some profound blindness;(33) they use every logistical means available to weight the scales in their favor. Fifth, operational artists sometimes lose themselves in a world of their own make-believe and persuade themselves that whatever story they put forth the enemy will accept as truth.(34) This has catastrophic implications when employing austere logistical assets in an ill-conceived deception. Sixth, deceivers are frequently limited by their superiors as to the resources that they

can commit to a deception.(35) This may explain why many commanders in both world wars and Korea did not exploit logistics in deception operations; the actual or perceived risks involved were too great.

Schlieffen once remarked "that both sides in a battle or campaign, the loser as much as the winner, contribute to the outcome by the various actions they take."(36) In regards to the employment of deceptive logistics, this statement remains true. The loser as well as the winner has the opportunity to deceive with logistics; however, it is the manner in which logistics is employed plus the risk that is assumed which contribute to the outcome.

### III. Opportunity from Dilemma

In war it is all-important to gain and retain the initiative, to make the enemy conform to your action, to dance to your tune. (37)

One can argue that the successful employment of deceptive logistics contributes to the seizure and retention of operational initiative and to operational victory itself; however, to capitalize fully upon the utility of deceptive logistics, an operational headquarters must synchronize its decisionmaking and risk taking associated with logistical and deception matters. At this level, the efforts of a headquarters will be focused on the creative coupling of logistics to deception. Achieving and maintaining this operational focus in relation to all other operational matters are both mandatory and elusive as an operational headquarters will be confronted by dilemmas of varying magnitude. At the same time, however, valuable opportunities will surface that encourage deception by logistical means. How a headquarters deals with each dilemma will determine the efficacy of both deception and logistical arrangements and possibly the outcome of a major operation or campaign. Noting this, further elaboration on the dilemmas and opportunities associated with the operational employment of deceptive logistics is warranted.

The degree of centralization in decisionmaking and control as it relates to logistical deception will confront an operational headquarters in the form of a dilemma. Research indicates that the dilemma revolves around three schools of thought, each containing valid reasoning. First, decisionmaking and control should always be

exercised at the highest possible level and in a single headquarters. Here, one can argue that this must be the case otherwise various uncoordinated, lower-level, logistical deception schemes will compromise the entire operation. It is believed that only the higher headquarters can have sufficiently accurate information to draw correct operational conclusions from its deception efforts.(38) Additionally, it is believed axiomatic that successful deception cannot be a mere add-on to an operation; it must truly be a fully integrated part of the entire operation.(39) For these reasons, centralization of control and coordination must rest in a single headquarters.(40) In contrast, the second school of thought advocates decentralization of decisionmaking and control based primarily on the American way of warfighting. Here, the American theory of command tends towards a preference for mission-type orders virtually every level, extending a wide discretion to the responsible officer on the scene to accomplish the tasks assigned him according to his own judgment of the circumstances.(41) It is believed that if this is not the case, and higher headquarters will be tempted to meddle in subordinate headquarters business.(42) Finally, decisionmaking authority and control of logistical deception efforts should rest at the highest operational level but with compromise. This school asserts that the operational commander and staff must see the battlefield through a set of strategic, operational, and tactical lenees; this headquarters, therefore, must be able to address stratic as well as tactical deception efforts.(43) The headquarters must be free to move to each command rung as will to control and direct logistical deceptions.(44) This can be accomplished through the



operational commander's directed telescope mechanism (placing a trusted agent in a subordinate headquarters or at some critical spot on the battlefield), the establishment of a viable deception liaison officer program, or the formation of battlefield deception cells (BDC) at corps and division headquarters. The corps BDC would be responsible for augmenting the theater deception objective down to division BDC.(45) It would provide deception planning support, support the execution of corps deception operations, and execute limited logistical/critical node replication.(46) The BDC at division would be responsible for executing the deception story as it relates to higher headquarters deception operations.(47) It appears that the third school of thought is the logical solution to the dilemma; however, this assumes that the directed-telescope mechanism, deception liaison officer program, or BDC initiative will be functioning when required on the battlefield.

Research indicates that Brusilov, Allenby, and MacArthur excelled as operational artists with their campaign plans reflecting and appreciation for centralized planning and control in deception operations to include deception by logistical means. Because of this centralization of effort, many subordinate organizations to include commanders were unaware that they were part of a deception. Our operational leaders today must remain cognizant of this aspect of command and control when developing their contingency plans.

Another dilemma facing the operational artist is the issue of static versus mobile sustainment capability. This dilemma is not just

a twentieth century development in that:

If one moves with everything the stores will travel slowly and he will not gain the advantage. If he leaves the heavy baggage behind and presses on with light troops, it is to be feared the baggage would be lost.

Sun Tzu(48)

Since this "heavy baggage" can logically equate to our logistical tail, one must question how mobile are these logistical assets today plus how mobile should they be. Here lies the dilemma. Logistical resources need to be mobile in order to enhance flexibility and responsiveness for operational and tactical level operations (including deception operations) as our AirLand Battle doctrine suggests, and to lessen the vulnerability of the logistical infrastructure to enemy identification and destruction. On the other hand, the operational commander and his subordinate commanders require large (and relatively immobile) stockpiles of supplies to meet contingencies. Normally, this means that the logistical base will be stationary thus providing the enemy a better chance to observe, target, and destroy it at will. However, deception opportunities do emerge from this dilemma enabling a shrewd operational commander to balance the utility and vulnerability of his logistical infrastructure. Section IV suggests a variety of ways to address this challenge.

Related to the previous dilemma is the issue of dispersion versus concentration of logistics. The force "...with the precorderance of military capability can afford to waste a good deal of it;"(49)

unfortunately, the U.S. may not have this luxury in the future. Having a weaker logistical posture therefore implies a greater need to concentrate that which is available.(50) This concentration is again more vulnerable to enemy identification and destruction. On the other hand, the U.S. should avoid unnecessary bunching of logistical resources unless deceiving the enemy.(51) Even though an operational commander must weight his main effort to facilitate the concentration of forces at the decisive point, the dispersed placement of key logistics units and activities must leave his opponent deceived or at least unsure as to the location of his main effort.(52) This dispersal of logistics is a resource-consuming challenge; however, opportunities to maximize effectiveness through deception do exist (See Figures 1 and 2).

The importance of time in modern war cannot be exaggerated. In deception operations, time will be rationed for planning, preparing, and executing the deception story based on its objective. This rationing results in a dilemma with significant repercussions. If ample time for planning is provided, then preparation and execution time allocations may be inadequate; if planning time is insufficient, the entire operation may suffer. It is true that "...the best laid [Deception] plans can go awry in war"(53) in that it is one thing to plan a deception, another to execute it. Generally, operational level deceptions consume more time and are riskier than tactical level deceptions; however, the judicious use of available time and resources can result in a successful deception even when employing logistical arrangements. Planners must not violate Hindenburg's maxim that in war only the simple succeeds.(54) Deceptionists must be aware that

procrastination is the greatest operational sin;(55) there is a limit to which prudent planning should go and those who fail to recognize this will not normally be successful.(56) Fortunately, the operational environment may be such that a deception plan will not have to work for long; it may not have to be totally effective either in that an ambiguous logistical picture will often be enough to prevent the enemy from reacting in time. The essence of all operational activity is timing; a "brilliant plan wrongly timed, put into operation too early or too late, is at the best a lame thing and at the worst may be a disaster."(57) Time, therefore, must be wisely used in the planning, preparation, and execution of logistical deception.

Security measures for battlefiled deception which include logistical arrangements tend to frustrate efforts of control and coordination when they are most necessary. Having decided to launch an offensive or merely renew an ongoing battle or campaign, the operational commander faces a dilemma when mobilizing and deploying his martial means while retaining enough secrecy or at least uncertainty to avoid sacrificing surprise, much less drawing a preemptive attack. It is unrealistic to expect "security" to conceal any large-scale operation because with rare exceptions, even the tightest security measures will guard against disclosure only to the naive, preoccupied, witless, incompetent, or unlucky enemy.(58) More or less specific warning signals will almost inevitably filter through the secrecy screen and reach the intended victim.(59) Armed with this knowledge, the operational commander can still successfully execute a deception. It remains valid that operational security (OPSEC) efforts

must be taken seriously at all levels and by all organizations, especially logistics organizations. The operational commander may decide to deceive his own troops so as to not compromise his plans; this is an unfortunate but effective way of maintaining secrecy. If this is to be the case, the operational commander or his trusted planners must be familiar with logistical capabilities of subordinate support organizations participating in the deception operation otherwise the plan may be doomed to failure. There are other equally effective means of providing security for deception operations through logistical arrangements besides non-disclosure of the commander's intentions. These are addressed in Section IV. Basically, a creative and resourceful operational headquarters can orchestrate a deception operation with a particular logistical portrayal and without significant forfeiture of effectiveness.

A dilemma that is no less important than the previous ones highlighted deals with sustainment focus at the operational and tactical levels. At the tactical level, there exists a widely-held and pessimistic perception that there are never enough supplies on hand. For this reason, hoarding of supplies from company through senior tactical level organization is generally accepted and frequently rewarded. The source of these supplies is normally the operational sustainment base. At the operational level, the same pessimistic perception towards supply levels may prevail. Introduce a major deception mission or any mission requiring the fencing or expenditure of logistical stocks at the expense of tactical sustainment and the operational commander has the makings of a real dilemma. How can the operational sustainment base husband limited

resources for an upcoming deception operation while satisfying tactical level requirements on a daily basis? The key is to husband resources for the deception while selectively expending supplies under conditions which will yield significant tactical results.(60) To perform this juggling act requires knowledge of anticipated consumption rates, stockage levels, and missions of affected units. In addition, it requires consideration of the affected commanders' and their senior logisticians' modes of operation. For example, an affected subordinate corps may have a G4 and corps support command (COSCOM) commander who are known to stock more supplies than are required. This is valuable information to know when husbanding resources at the operational level.

Since an operational force may consist of multi-service as well as multi-national forces, deceptions may require significant logistical investments from the other services and various allied or other friendly nations. Deceptions at this level pose the most difficult, yet most likely circumstances under which the U.S. Army may be required to participate. The operational commander again faces the dilemma of melding joint and combined command and control systems, interoperability issues, warfighting and sustainment doctrine, and unity of effort among key players; all of which effect the successful conduct of deceptions incorporating logistical arrangements. Operational artists must take into consideration not only the coupling of joint/combined logistical infrastructures to the deception story but the unique logistical characteristics of each participating Service and nation.

Above all, the enemy must be susceptible to the deception if the

deception is to be successful. With this in mind, one must question whether a joint or combined deception with appropriate logistical portrayals can be successfully conducted today when considering the disconnects among the key players. At joint level, each U.S. Service has unique logistical characteristics. At the combined level, sustainment and logistical support is a national responsibility; therefore, when the operational commander wants to shift combat power laterally across the battlefield, he cannot just move combat formations and tactical headquarters rapidly.(61) He must move much larger formations, complete with their own logistical support.(62) If this is not taken into consideration during planning, an entire deception operation can be compromised. At best, a multi-service logistical deception is difficult and only if simple in design, meticulously planned, and thoroughly coordinated. A multi-national logistical deception presents a greater challenge given time, resource, political, and geographic constraints/restrictions.

The campaign plan which gives expression to the operational level on the battlefield is imbued with a high level of "mysticism"(63) because the campaign develops over a relatively long period of time with a great deal of uncertainty or ambiguity permeating its planning, preparation, and execution. Therefore, the operational commander must take risks which mean that he will economize in areas of low immediate danger to concentrate resources against the more dangerous threats.(64) Include a deception with a large logistical investment in the campaign and a clash will occur between the "logistician's scientific quest for certainty" and the "deceptionist's artistic manipulation of uncertainty". This dilemma is based on the

logistician's natural desire for certainty and avoidance of risk taking.(65) In the defense of the logistician, the operational commander demands logistical certainty otherwise the major operation of campaign is jeopardized from the beginning. The logistician attempts to sustain the force in an efficient, business-like manner; he prefers distinct boundaries and systematic logistical actions.(66) On the other hand, the operational deceptionist is an artist whose world is uncertainty; he may or may not seek the logistician's advice when conjuring up deceptive ploys. For example, General MacArthur's selection of Inchon for his amphibious assault in September of 1950 was a perfect choice from a deception point of view; however, Inchon was a logistician's nightmare. As History reveals, MacArthur was adamant and persuaded all parties to agree on Inchon. This particular incident demonstrates how a "great battle captain" balanced "science and certainty" with "art and uncertainty."

However, history provides warnings, "Imagination is a necessity for a general, but it must be a controlled imagination,"(67) plus "...it is not surprising that they [campaigns] had to be conducted on a logistics shoestring."(68)

Lastly, von Manstein provides an appropriate comment on risk, "But anyone who is not prepared to take such risks will never achieve decisive and...speedy results."(69) Maintaining a balance between the "logistician's scientific quest for certainty" and the "deceptionist's artistic manipulation of "uncertainty" is a challenge which cannot be overlooked. If the balance is achieved at the operational level, the probability of victory is most definitely enhanced.

The dilemmas discussed in this section have a common



denominator--opportunity. There is opportunity to solve the crisis at hand, to plan the next move, to experiment, to deceive, to gain the initiative, to be victorious. Although these dilemmas may be considered generic at the operational level and not unique to the employment of deceptive logistics, they do influence the decision to employ logistics in deceptive ploys. Taking this into consideration, the deceptionist can devise ways and techniques to confuse and mislead the enemy and, at the same time, to protect friendly sustainment activities from enemy ripostes.

#### IV. Deceptive Logistics at Work

Thus, those skilled at making the enemy move do so by creating a situation to which he must conform; the entice him with something he is certain to take, and with lures of ostensible profit they await him in strength.

Sun Tzu(70)

As previously stated, most logistical deceptions are conducted with a combination of options--location, time, size, method, and intention. Given the linkage of these options in deceptions, the method selected to illustrate various deceptive techniques in which logistical arrangements are contributory is a series of vignettes. These techniques are meant to be suggestive rather than definitive. It must be remembered that a vignette by definition is a brief word picture thus the operational conditions that promote the employment of selected logistical plays will be briefly stated. In actuality, an operational headquarters would have a more developed situation when deciding what sort of logistical deceptions to employ. In addition, some proactive recommendations that could enhance deception capabilities are provided in this section.

Vignette No. 1. Assume the enemy will attempt to identify and destroy special munitions while in storage or transit within a theater. The friendly operational headquarters could deceive the enemy by transporting dummy special munitions accompanied by special munitions handling personnel, military police, and aviation escorts to designated storage locations. The actual shipments would be disguised--the munition crates would have inconspicuous markings and

handling personnel and escort vehicles would be disguised. The real munitions would be staged in several dispersed locations and not in doctrinally accepted special ammunition storage points (SASP's). The purposes of this deception are to provide the enemy with false locations of special munitions and to protect existing stocks.

Vignette No. 2. Assume the enemy believes that U.S. sealift vessels are easy prey without escorts. In reality, selected vessels are armed with modern anti-aircraft, anti-surface ship, and even anti-submarine weapons. The U.S. vessels destroy their attackers at first opportunity. This frees U.S. naval combatant vessels from their convoy protection mission.

Vignette No. 3. In a low-intensity conflict scenario, "combat service support" units are overtly inserted into a region with civil affairs-type missions. In actuality, the units contain superbly trained combat personnel with reconnaissance duties to perform for an operational headquarters.

Vignette No. 4. To deceive the enemy as to future destinations of air and sea deployments, negotiate for basing, port call, and over-flight rights with many countries in the target region, not just the principal target country.

Vignette No. 5. To deceive the enemy as to the exact destination and cargo of a particular sealift vessel, have a second vessel of the same class rendezvous at sea with it. While together, the crews are

exchanged, the names of the ships are switched, and the captains receive new orders. Of course, the ships water-line readings are identical. At some predetermined point at sea, each vessel sails for a different port.

Vignette No. 6. To deceive the enemy as to the actual location of a remote airstrip, establish it on a highway. This can be accomplished by locating a straight stretch of highway, cordoning-off 8,000 to 10,000 feet, removing natural and man-made obstacles from the median and along the shoulders, conceal aircraft parking slots as well as essential support equipment and munitions.

Vignette No. 7. Assuming an enemy will target friendly fuel facilities, deceive him by establishing dummy fuel system supply points (FSSP's), petroleum rail tank car discharge points, and pipeline terminals. This misleads the enemy plus protects real sources of fuel by dissipating the enemy's effort.

Vignette No. 8. Assume an enemy will launch airstrikes against any friendly force that is being reconstituted in the rear combat zone (RCZ) or communications zone (COMMZ). Deceive the enemy by establishing a fake reconstitution area, directing the force to be reconstituted to move into the area, and having the unit halt for a predetermined length of time then proceed by various routes to other widely dispersed and concealed locations where the actual reconstitution will take place. This deception confuses the enemy as

to friendly intentions plus protects the friendly force and logistical resources.

Vignette No. 9. Assuming that friendly logistical movements increase prior to launching an offensive plus assuming the enemy will be alerted to this increase in traffic flow, deceive the enemy by allowing no forward movements other than the normal traffic until H-Hour, D-Day.

Vignette No. 10. Depending on the situation, purposely allow false or true "secret" information to be leaked to the media about troop and logistical movements to deceive an enemy. Actually, this breach of security is part of the deception.

Vignette No. 11. Assuming an enemy has intelligence-gathering sources in host nation organizations that assist in friendly movements, deceive the enemy by selectively disseminating fictitious rail, sealift, airlift, and highway movement orders through normal channels. Then, at a predetermined time, convey the real movement orders through alternate channels to the affected units.

Vignette No. 12. To help deceive an enemy into believing that a friendly force is about to launch an offensive when in reality the force is going to conduct a rearward movement, send transport vehicles forward with empty containers accompanied by empty 5,000-gallon fuel

tankers to simulate resupply. Load ammunition and fuels that are stockpiled and return to the rear.

Vignette No. 13. Deceive an enemy into believing that a friendly force is considering the establishment of support bases in a foreign country by actually sending logistical experts to that country and "reluctantly" publicizing the fact. (71)

Vignette No. 14. Assuming that enemy naval forces will actively patrol the off-shore waters in the vicinity of friendly ports in war, deceive the enemy by planting dummy submarines in the area. This can be accomplished by anchoring sealed rail tank cars near shipping lanes. Since the railcars float and can be visually and electronically detected, the enemy may reconsider entry into "guarded" waters. (72)

Vignette No. 15. There is a crisis in a Third World country with international security implications in that armed aggression by a puppet army of a major power is threatening the sovereignty of this Third World country. An operational commander is given the mission to enter the country and restore the status quo. The country has a coastline with three adequate ports. By positioning a naval task force with a Marine Amphibious Unit (MAU) offshore, the operational commander deceives the enemy into thinking that a marine force will enter one of the three ports; actually, the friendly force enters the region through a neighboring country with consent. There, forces and logistics are marshalled before launching the offensive.

Vignette No. 16. When seeking suitable sites for future staging, marshalling, and tactical assembly areas, select alternats as well as primary locations. Do not disclose which units will move to which units will move to which site until the last practical moment. The motive for the decision is quite apparent--delude the enemy operational commander.

Vignette No. 17. To deceive an enemy as to the locations of key logistical facilities and especially at night, establish fake lighting schemes that simulate marshalling yards, rail line signals, airstrips, and even base clusters. (73)

Vignette No. 18. Assuming the enemy will conduct airstrikes against key airfields, deceive the enemy by establishing replicas in close proximity to the actual airfield. This effort may reduce the vulnerability of the real runways and control facilities.

Vignette No. 19. Assuming that the anticipated movement of a newly arrived mechanized force in the theater is through a CMMZ-controlled staging/marshalling area plus assuming that enemy intelligence sources are aware of this, deceive the enemy by arranging for the mechanized force to bypass the staging/marshalling area and to continue directly to its designated tactical assembly area (TAA) where it will be logistically-readied for combat.

Vignette No. 20. There is no recipe for establishing a simulated

logistical support base. For instructional purposes, however, the following combat support (CS) and CSS units could be assembled to efficiently simulate a much larger corps or theater logistical base:

<u>QTY</u>	<u>UNIT</u>	<u>MISSION</u>
1..	Movement Control Team..	Control movements into, within, and out of support area.
1..	Military Police Company..	Enforce movement instructions and provide security.
1..	Military Intelligence Section..	Deceive enemy by simulating radio traffic for large formation.
1..	Transportation Medium Truck Platoon..	Transport empty containers from forward combat zone to support base.
1..	Heavy Equipment Transport Company..	Transport abandoned and damaged vehicles to support base.
1..	Terminal Transfer Platoon..	Handle containers at the support base.
1..	Collection and Classification Company..	Process abandoned and damaged vehicles that enter support base. (Note: A Heavy Equipment Maintenance Company could be a substitute.)

These units are accomplishing productive missions as well as contributing to the deception. The purpose of this simulation could be to lure Spetznaz teams or enemy air assault forces into an ambush which, if successful, would inflict both physical and psychological damage on the enemy.

Vignette No. 21. Assuming that occasions will arise when the U.S.



Army would be required to lay pipelines in combat, provide additional fake pipeline sections and equipment so that the vulnerability of the real assets is offset by the presence of the fake pipeline.

Vignette No. 22. To provide inexpensive, reusable, and high quality decoys of such items as tanks, helicopters, trucks, howitzers, and trailers, the U.S. Army could make provisions to stock these decoy items at direct support and general support supply units that support brigades, divisions, and corps.

Vignette No. 23. Assume that a sizable friendly force is holding its own combat; however, it is isolated, low on supplies, and in need of medical support. Air resupply is inadequate. Deceive the enemy into believing that the isolated force is doomed; thus, no attempt to rescue the force will be made. A short time later, launch a "logistics sprint" to the isolated force protected by ground escorts, close air support, attack helicopters, and artillery.

Vignette No. 24. Given that an armored division has a mission to attack deep into the enemy's rear to sever lines of communications and to linkup eventually with another friendly force plus assuming that the enemy has "underestimated" (by deception) our ability and will to attack deep with ground forces, direct the armored division to strip away unnecessary organic forces and equipment, augment the division with selected corps assets carrying sufficient fuel and ammunition for a given number of days, and attack.

Vignette No. 25. A light infantry brigade is arriving in the theater by air or sea. Deceive the enemy as to its final destination by secretly loading the brigade's units as they arrive into shipping containers, handling the containers as if the contents were dry cargo, and quickly transporting the containers to the vicinity of the brigade's TAA. Repeat the process until the entire brigade has closed.

Vignette No. 26. An operational headquarters can alert a logistics organization for a deception mission without sacrificing security by issuing a "be prepared" or "on order" (o/o) mission. When the deception mission is deemed necessary activate the on order or be prepared mission. Examples are o/o changes of main supply routes (MSR), o/o changes for movements from highway to rail, and be prepared to change destination airfields for incoming flights.

Vignette No. 27. Deceive the enemy into thinking that a large theater ammunition storage area has been established at a particular location. Enemy intelligence sources reveal hundreds of shipping containers near a railhead; forklifts are unstuffing containers and loading ammunition crates into trucks on a daily basis. In actuality, the containers store empty ammunition crates and a truck platoon is travelling a circuitous route starting and ending at the fake storage site. Also, friendly air defense systems have been alerted to a probable airstrike. The enemy takes the logistical bait and flies into an anti-aircraft ambush. The losses to the U.S. are negligible.

Vignette No. 28. Employ smoke deceptively to confuse the enemy concerning friendly logistical activities.

Vignette No. 29. Assuming that friendly forces will employ a standard route signing procedure when moving large formations by road plus assuming that the enemy will attempt to monitor movements along these routes, deceive the enemy by occasionally moving on unsigned and unpublished deployment routes.

Vignette No. 30. Assuming the enemy will conduct airstrikes against key bridges, airfields, and rail lines, deceive the enemy into believing that these targets are totally destroyed. In actuality, the assets are functional (damage may limit capability) and only appear destroyed.

Vignette No. 31. Assume the enemy will reuse our abandoned and repairable major support systems like forklifts, wreckers, and fuel tankers. Sensitive transponders previously affixed to the selected systems could be activated by a crew member or fellow soldier in accordance with standard procedures. By tracking the transponder signals, the friendly force determines enemy supply routes, logistical support areas, and more.

Vignette No. 32. Deceive the enemy into thinking that a future operation will take place in an arctic environment by letting a contract for large quantities of antifreeze, requesting large quantities of arctic zone clothing, issuing arctic kits for vehicles,

and issuing maps of the area. When this is complete, go elsewhere. (74)

Hopefully, these vignettes have confirmed the utility of logistical schemes in deception operations. Some of the vignettes may appear far-fetched or even bizarre; however, one can argue that this is precisely why the ploys can work. As Correlli Barnett stated in The Desert Generals, "Victory lay, therefore, in the unorthodox." (75) Again, operational artists must recognize that logistical deception is only a means to an end, not an end in itself. With logistical deception integrated into the overall deception plan and campaign plan, the probability of operational success is enhanced.

## V. Conclusion

...the only successful military commander is the one who can think ahead. He must be able to see through the veil in which the enemy's future actions are always wrapped, at least to the extent of correctly judging the possibilities open to both the enemy and himself. The greater one's sphere of command, of course, the further ahead one must think. And the greater the distances to be covered and the formations to be moved, the longer is the interval that must elapse before the decision one has taken can produce tangible results.

Field Marshal Erich von Manstein(76)

When the operational commander is judging the possibilities open to himself on the battlefield, he must not forget deception and the role that logistics can play in deception. Ideally, the commander will use both deception and logistics to his advantage and to his enemy's disadvantage; however, a caveat is warranted. Attaining a high level of proficiency in planning and orchestrating logistical deception is, at best, difficult in peacetime or on the battlefield. This demands effective force package development and superb command and staff leadership in operational headquarters along with their major CSS organizations such as corps support groups, COSCOM's, theater support groups, theater army area commands, transportation commands (TRANSCOM's), medical commands (MEDCOM's), and personnel commands (PERSCOM's). In addition, the equivalent support organizations of the other Services and potential allies should have equal maturity. Considering that the majority of Army CSS rests in the reserve component (RC), the possibility of this high degree of maturation existing at the outset of hostilities is remote.

It is axiomatic that a logistics infrastructure must have a

flexible response capability to accommodate the operational commander's plan to include his deception plan. This implies the need for an effective command and control apparatus, a reliable/secure communications network, a viable liaison program, a dependable intelligence mechanism, and a self-protection capability within major logistical organizations. Of course, these organizations must possess the ability to support major tactical forces through effective movement control; traffic regulation; materiel management; and, personnel replacement, medical, maintenance, supply, and transportation support. This must be taken into account when developing force packages to meet operational requirements; logistics cannot be an afterthought.

Deception should not be an operational afterthought either since the effects of a successful deception can be extraordinary. Sun Tzu contends, "Generally, in battle, use the normal force to engage; use the extraordinary to win." (77) As war is often considered a conflict of psychology and confidence, the effective use of deception can weaken the mightiest adversary to a point where he can be attacked, overwhelmed, and decisively defeated.

An operational commander cannot sit idle allowing his force to lose momentum or initiative; he commits every available resource at his disposal towards success. True, the operational commander may feel that he lacks the requisite assets to accomplish his mission; however, he can employ his available resources and deception in a mutually supporting manner to improve the overall effectiveness of his force. In other words, the employment of logistics can contribute to deception efforts at the operational level. As previously mentioned

in Section IV, there are many creative techniques available to the operational headquarters.

It is true that great risk and uncertainty are associated with logistical deception at the operational level; however, one can argue that, "in war, caution can prove paradoxically reckless." (78) In the future, risk and uncertainty will continue to pervade our operational environment. Realizing this, our operational level leaders must immerse themselves into the realm of the possible and grasp opportunity. Employing deceptive logistics may be just that opportunity.

FIGURE 1. Division, Corps, and Theater Logistical Nodes Without Dispersion and Deceptive Positioning.

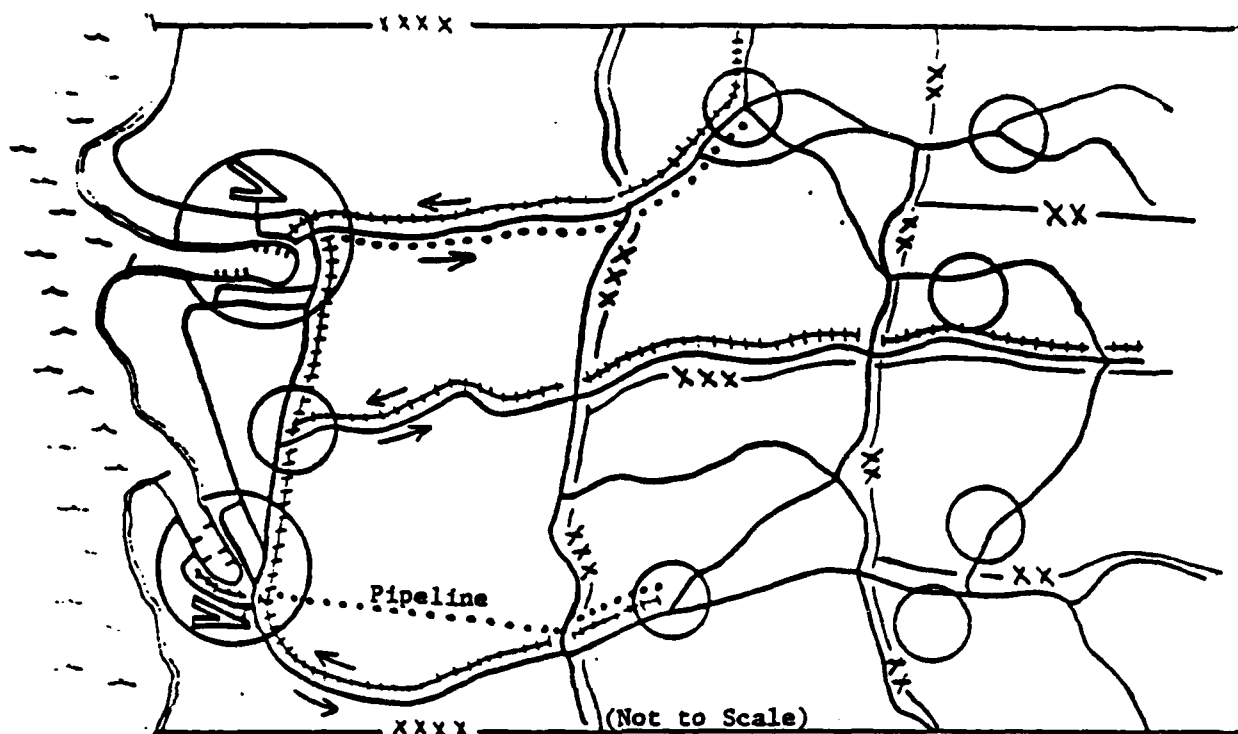
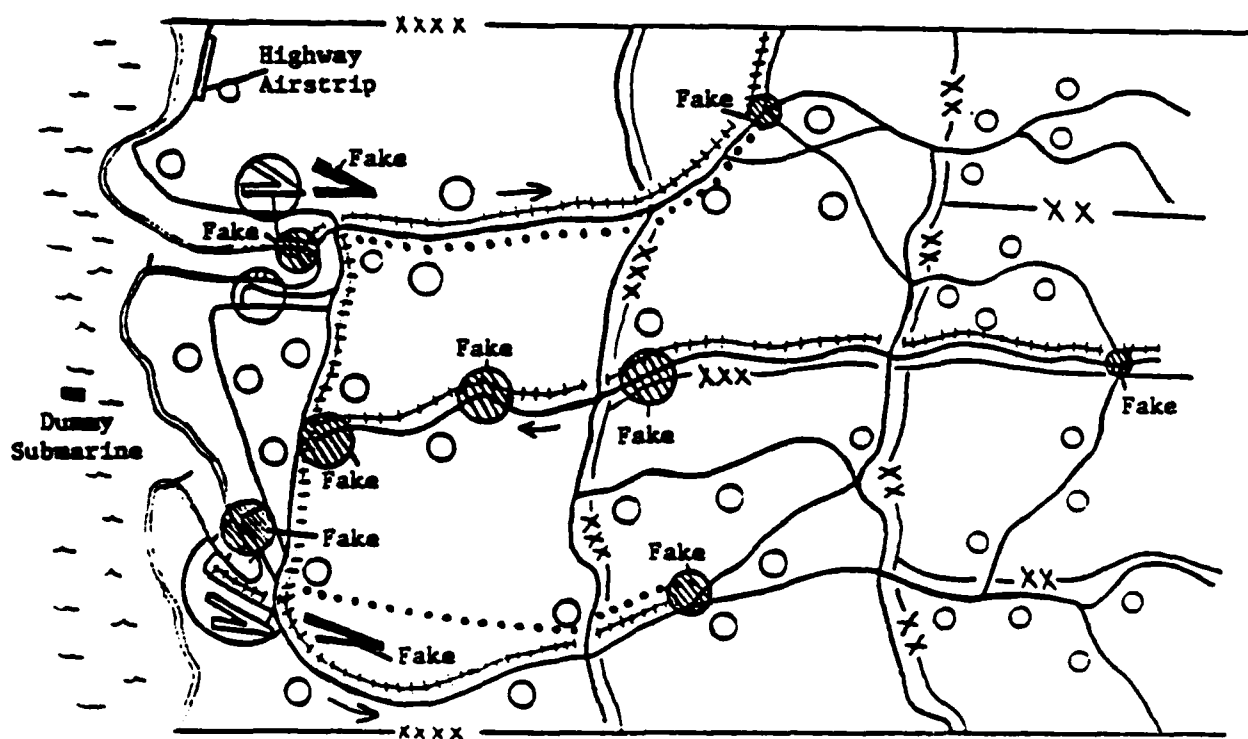


FIGURE 2. Division, Corps, and Theater Logistical Node Dispersal and Fake Support Areas.





## ENDNOTES

(1) William J. Bolt, COL, USA and David Jablonsky, COL, USA, "Tactics and the Operational Level of War," Military Review, (Fort Leavenworth, KS, February 1987), p. 4.

(2) U.S. Army, Field Manual 100-5, Operations, (Washington, D.C., 5 May 1986), p. 10.

(3) U.S. Army Intelligence Center and School, "Intelligence Training Notes," (Fort Devens, MA., October 1986), VOL. 4, Issue 4-86, p. 3.

(4) U.S. Army Combined Arms Center briefing packet. "AirLand Battle," (Fort Leavenworth, KS, undated), p. 33.

(5) Charles J. Dick, "Soviet Operational Concepts, Part I." Military Review, (Fort Leavenworth, KS, September 1985), p. 33.

(6) FM 100-5, Operations, p. 65.

(7) U.S. Army CAC, "AirLand Battle," p. 34.

(8) James A. Huston, The Sinews of War: Army Logistics 1775-1953, (Washington, D.C., 1966), p. viii.

(9) U.S. Army CAC, "AirLand Battle," p. 42.

(10) Charles G. Cruickshank, Deception in World War II, (New York, 1980), p. 23.

(11) Thomas A. Savoie, Maj, USA, "Deception at the Operational Level of War," (Fort Leavenworth, KS, May 1986), p. 20.

(12) Barton Whaley, "Stratagem: Deception and Surprise in War. Volume I," (Cambridge, MA, 17 April 1969), p. 12.

(13) Norman Stone, The Eastern Front 1914-1917, (New York, 1975), pp. 235-248.

(14) Whaley, VOL I, p. 27.

(15) Cyril B. Falls, Armageddon: 1918, (Washington, D.C., 1979), pp. 40-45.

(16) Bolt and Jablonsky, "Tactics and the Operational Level of War," p. 7.

(17) Correlli Barnett, The Desert Generals, (Bloomington, 1960), p. 44.

- (18) David Irving, The Trail of the Fox, (New York, 1977), p. 82.
- (19) Cruickshank, Deception in World War II, pp. 22-24.
- (20) Barnett, The Desert Generals, p. 134; and K. J. Macksey, Afrika Korps, School of Advanced Military Studies (SAMS) Reprint, (Fort Leavenworth, KS, undated), p. 19
- (21) Cruickshank, Deception in World War II, pp. 28-29.
- (22) Geoffrey Jukes, Kursk: The Clash of Armour, (New York, 1968), pp. 124-6.
- (23) Patrick Hughes, LTC, USA, Interview with author, 30 January 1987.
- (24) U.S. Army Twelfth Army Group, "Cover and Deception Report ETO." Exhibit '8', Tactical Operation E. Wiltz Operation, no page number.
- (25) Barton Whaley, "Stratagem: Deception and Surprise in War. Volume IV," (Cambridge, MA, 13 July 1978), p. A493.
- (26) Ibid., pp. A505-6.
- (27) Robert F. Futrell, The United States Air Force in Korea, 1950-1953, (New York, 1961), pp. 400-438.
- (28) Robert Leckie, Conflict: The History of the Korean War, 1950-53, (New York, 1962), p. 320.
- (29) Whaley, VOL IV, p. A593.
- (30) Whaley, VOL I, p. 9.
- (31) T. E. Lawrence, Seven Pillars of Wisdom, (Garden City, NJ, 1935), p. 537.
- (32) Whaley, VOL I, p. 8.
- (33) Ibid., p. 2.
- (34) Cruickshank, Deception in World War II, p. 220.
- (35) Ibid., p. 54.
- (36) Erich von Manstein, Field Marshal, Lost Victories, (Novato, CA, 1982), p. 441.
- (37) Sir William Slim, Field-Marshal, Defeat Into Victory, USACGSC Reprint; (London, 1956), p. 292.

- (38) Barnett, The Desert Generals, p. 68.
33. (39) Savoie, "Deception at the Operational Level of War," p.
- (40) Ibid.
- (41) Russel F. Weigley, Eisenhower's Lieutenants: The Campaign of France and Germany 1944-1945, (Bloomington, 1981), pp. 182-3.
- (42) Manstein, Lost Victories, p. 383.
- (43) Harold R. Winton, LTC, USA, Lecture notes at Fort Leavenworth, KS, 20 February 1987.
- (44) Ibid.
- (45) "Intelligence Training Notes," p. 3.
- (46) Ibid.
- (47) Ibid.
103. (48) Sun Tzu, Sun Tzu - The Art of War, (New York, 1963), p.
- (49) Huba Wass de Czege, COL, USA, "Understanding and Developing Combat Poser," (Fort Leavenworth, KS, 10 February 1984), p. 1.
- (50) Winton lecture on 20 February 1987.
- (51) Charles J. Dick, "Soviet Operational Concepts, Part II." Military Review, (Fort Leavenworth, KS, October 1985), p. 12.
- (52) Memorandum, Department of the Army, Fort Leavenworth, KS, ATTN: ATZL-SWV, Subject: Observations and Doctrinal Issues from SAMS Corps Operations Exercise, dated 9 December 1986, (Deception observation).
- (53) Dick, Part I, p. 40.
210. (54) Martin Van Creveld, Supplying War, (New York, 1977), p.
- (55) Winton lecture notes of 20 February 1987.
- (56) Van Creveld, Supplying War, p. 203.
- (57) Slim, Defeat Into Victory, p. 294.
- (58) Whaley, VOL I., p. 1.

- (59) Ibid., p. 2.
- (60) Dwight W. Galda, LTC, USA, "Technical Intelligence (TI) for the 80's. Unpublished study, 1979, p. 16.
- (61) L. L. Izzo, LTC, USA, "An Analysis of Manstein's Winter Campaign on the Russian Front, 1942-43," (Fort Leavenworth, KS, 1986), p. 70.
- (62) Ibid.
- (63) Lloyd Matthews, COL, USA (Retired), "Operationalese Mania," Army, (February 1987), p. 19.
- (64) FM 100-5, Operations, p. 141.
- (65) Kenneth R. Pierce, LTC, USA, Interview with author on 30 January 1987.
- (66) Ibid.
- (67) Slim, Defeat Into Victory, p. 413.
- (68) Van Creveld, Supplying War, p. 203.
- (69) Manstein, Lost Victories, p. 440.
- (70) Sun Tzu, Sun Tzu - The Art of War, p. 93.
- (71) Cruickshank, Deception in World War II, p. 133.
- (72) U.S. Department of the Army. Pamphlet no. 20-201, Military Improvisation During the Russian Campaign, (Washington, D.C., 29 August 1951), pp. 58-9.
- (73) Cruickshank, Deception in World War II, p. 11.
- (74) Ibid., pp. 38-44.
- (75) Barnett, The Desert Generals, p. 34.
- (76) Manstein, Lost Victories, p. 409.
- (77) Sun Tzu, Sun Tzu - The Art of War, p. 91.
- (78) Weigley, Eisenhower's Lieutenants, p. 463.

## BIBLIOGRAPHY

### Books

Barnett, Correlli. The Desert Generals. Bloomington: Indiana University Press, 1960.

Carell, Paul. Scorched Earth. Translated from the German by Edward Osers. New York: Ballantine Books, 1971.

Cruickshank, Charles G. Deception in World War II. New York: Oxford University Press, 1980.

Du Picq, Ardant COL, French Army. Battle Studies: Ancient and Modern Battle. Translated by COL J. N. Greely, USA and MAJ R. C. Cotton, USA. Harrisburg, PA: The Military Service Publishing Company, 1946.

Erfurth, Waldemar. Surprise. First translation by Dr. Possonv and Daniel Vilfroy. Art of War Colloquium. Carlisle Barracks, PA: U.S. Army War College, 1983.

Falls, Cyril B. Armageddon: 1918. 2<sup>nd</sup> Ed. Washington, D.C.: The Nautical and Aviation Publishing Company of America, 1979.

Feldman, Shair and Rechnitz-Kigner Heda. Deception, Consensus and War: Israel in Lebanon. Tel Aviv: Jaffee Center for Strategic Studies, Tel Aviv University, October 1984.

Futrell, Robert F. The United States Air Force in Korea 1950-1953. New York: Duell, Sloan, and Pearce, 1961.

Heinl, Robert Jr. Victory at High Tide. Washington, D.C.: The Nautical and Aviation Publishing Company of America, 1974.

Heiser, Joseph M. Jr. Logistic Support: Vietnam Studies. Washington, D.C.: Department of the Army, 1974.

Horne, Alistair. To Loose a Battle. New York: Penguin Books. 1979.

Huston, James A. The Sinews of War: Army Logistics 1775-1953. Washington, D.C.: Office of the Chief of Military History. U.S. Army, 1966.

Irving, David. The Trail of the Fox. New York: Avon Books, 1977.

Jukes, Geoffrey. Kursk: The Clash of Armour. New York: Ballantine Books, 1968.

Lawrence, T. E. Seven Pillars of Wisdom. Garden City, NJ: Doubleday, 1935.

Leckie, Robert. Conflict: The History of the Korean War, 1950-53. New York: Putnam's, 1962.

Macksey, K. J., Major, M.C. Afrika Korps. School of Advanced Military Studies (SAMS) Reprint. Fort Leavenworth, KS: U.S. Army Command and General Staff College (USACGSC), undated.

Morison, Samuel E. History of United States naval Operations in World War II, 15 Volumes. Boston: Little, Brown, 1946-1962.

Paret, Peter, Makers of modern Strategy from Machiavelli to the Nuclear Age. Edited by Peter Paret with collaboration of Gordon Craig and Felix Gilbert. Princeton, NJ: Princeton University Press, 1986.

Parotkin, Ivan, Major-General, Russian (Editor-in-Chief). The Battle of Kursk. (USACGSC Reprint). Translated from Russian by G. P. Ivanov-Mumjiev. Moscow: Progress Publishers, 1974.

Slim, Sir William, Field-Marshal, British. Defeat Into Victory. (USACGSC Reprint). London: Cassell and Company LTD, 1956.

Stone, Norman. The Eastern Front 1914-1917. New York: Charles Scribner's Sons, 1975.

Sun Tzu. Sun Tzu-The Art of War. Translated by Samuel B. Griffith. Foreward by B. H. Liddel Hart. New York: Oxford University Press, 1963.

Van Creveld, Martin. Command. (SAMS Reprint). Fort Leavenworth, KS: USACGSC, undated.

Van Creveld, Martin. Supplying War. New York: Cambridge University Press, 1977.

Von Leeb, Ritter, Field Marshal, German. Defense. First translation by Dr. Possony and Daniel Vilfroy. Art of War Colloquium, Carlisle Barracks, PA: U.S. Army War College, 1983.

Von Manstein, Erich, Field Marshal, German. Lost Victories. Edited and translated by Anthony G. Powell. Novato, CA: Presidio Press, 1982.

Von Mellenthin, F. W. and Stolfi, R.H.S. with Sobik, E. NATO Under Attack. Durham, NC: Duke University Press, 1984.

Wavell, A.C.P. Speaking Generally. London: unknown publisher, 1946.

Weigley, Russel F. The American Way of War. Bloomington: Indiana University Press, 1977.

Weigley, Russel F. Eisenhower's Lieutenants: The Campaign of France and Germany 1944-1945. Bloomington: Indiana University Press, 1981.

West, Joseph Dr. Principles of War: A Translation from the Japanese. Reprinted by Combat Studies Institute. Fort Leavenworth, KS: USACGSC, January 1969.

#### Articles and Periodicals

Bolt, William J. COL, USA and Jablonsky, David COL, USA, "Tactics and the Operational Level of War," Military Review, February 1987, pp. 2-19.

Coen, Richard D. "LOGMARS Today," Army Logistician, January-February 1987, p. 7.

Dick, Charles J. "Soviet Operational Concepts, Part I," Military Review, September 1985, pp. 29-45.

Dick, Charles J. "Soviet Operational Concepts, Part II," Military Review, October 1985, pp. 4-19.

Forbes, John Jr. CPT, USA. "Supply Base Camouflage," Army Logistician, May-June 1976, pp. 21-22.

Harman, Larry D. MAJ, USA. "Container Solution," Army Logistician, Nov-Dec 1983, p. 44.

Hofmann, Wilfred. "Is NATO's Defense Police Facing a Crisis?" NATO Review, August 1984, pp. 1-7.

Landry, John R. COL, USA and Sullivan, Bloomer D. LTC, USA. "Forward Support Battalion," Military Review. January 1987, pp. 24-30.

Lewis, L. Kirk CPT, USA. "Smoke," Field Artillery Journal. September-October 1975, pp. 44-45, 51.

Marsh, Curtis N. III LTC, USA. "Reconstitution," Military Review. January 1987, pp. 56-61.

Matthews, Lloyd J. COL, USA(Retired). "Operationaless Mania," Army. February 1987, pp. 19-25.

Odorizzi, Charles D. "Can the Army's Tail Keep Up with Its Tooth?" Armed Forces Journal. July 1986, pp. 60-68.

Privatsky, Kenneth L. MAJ, USA. "Mobility versus Sustainability," Military Review. January 1987, pp. 48-55.

Sims, Lynn L. Ph.D. "Battle Area Logistics in the Future," Army Logistician, July-August 1983, pp. 20-23.

### Theses, Studies, and Other Papers

\_\_\_\_\_. "AirLand Battles". Combined Arms Center briefing packet. Fort Leavenworth, KS, undated.

Drea, Dr. Edward J. "Unit Reconstitution-A Historical Perspective". CSI Report No. 3, USACGSC. Fort Leavenworth, KS, 1 December 1983.

Galda, Dwight W. LTC, USA. "Technical Intelligence (TI) for the 80's". Unpublished study, 1979.

Glantz, David M. COL, USA. "From the Don to the Dnepr: A Study of Soviet Offensive Operations, Dec 1942-Aug 1943". USACGSC. Fort Leavenworth, KS, undated.

Gross, David F. CPT, USA. "Logistical Implications of the Operational Level Offensive". MMAS Thesis, USACGSC. Fort Leavenworth, KS, 1984.

Hacker, Charles L. MAJ, USA. "Deception, Countersurveillance, and the AirLand Battle". MMAS Thesis, USACGSC, Fort Leavenworth, KS, 7 May 1985.

Hall, Wayne M. MAJ, USA. "Trip Report from NTC, 30 Oct-6 Nov 1986." Fort Carson, CO: Headquarters, 104<sup>th</sup> MI BN (FW), 4<sup>th</sup> Infantry Division (Mech); dtd 20 Nov 1986.

Harman, Larry D. MAJ, USA. "Containerization-Argumentative Paper". USACGSC Requirement for 1985-6 Class. Fort Leavenworth, KS, undated.

Harman, Larry D. MAJ, USA. "Scavenger Logistics in Support of Tactical Operations". Monograph for SAMS, USACGSC, Fort Leavenworth, KS, 4 December 1986.

Izzo, L. L. LTC, USA. "An Analysis of Manstein's Winter Campaign on the Russian Front, 1942-3". SAMS, Advanced Operational Studies Program, USACGSC, Fort Leavenworth, KS, 1986.

Savoie, Thomas A. MAJ, USA. "Deception at the Operational Level of War". Monograph for SAMS, USACGSC. Fort Leavenworth, KS, May 1986.

Tuttle, Henry Stanton MAJ, USA. "The Liaison Officer-The AirLand Battle Commander's Directed Telescope". Monograph for SAMS, USACGSC, Fort Leavenworth, KS, December 1985.

Wass de Czege, Huba COL, USA. "Understanding and Developing Combat Power". USACGSC, Fort Leavenworth, KS, 10 February 1984.

Whaley, Barton. "Stratagem: Deception and Surprise in War, Volume I". Cambridge, MA: Massachusetts Institute of Technology, 17 April 1969.

Whaley, Barton. "Stratagem: Deception and Surprise in War, Volume IV". Cambridge, MA: Massachusetts Institute of Technology, 13 July 1978.



## U.S. Government Documents

Field Circular 90-2, Deception Operations Planning Guide. U.S. Army Combined Arms Combat Development Activity, Fort Leavenworth, KS, 2 September 1985.

Field Manual 9-6, Ammunition Service in the Theater of Operations, 20 January 1984.

Field Manual 30-16, Technical Intelligence, 31 August 1972.

Field Manual 34-60, Counterintelligence, 14 August 1985.

Field Manual 41-10, Civil Affairs Operations, 17 December 1985.

Field Manual 63-3J, Combat Service Support Operations-Corps. 12 August 1985.

Field Manual 63-4, Combat Service Support Operations-Theater Army Area Command, 24 September 1984.

Field Manual 90-2, Tactical Deception, 2 August 1978.

Field Manual 90-10, Military Operations on Urbanized Terrain (MCUT), 15 August 1979.

Field Manual 90-14, Rear Battle, 10 June 1985.

Field Manual 100-5, Operations, 5 May 1986.

Field Manual 100-16, Support Operations: Echelons Above Corps, 16 April 1985.

Field Manual 100-20, Low Intensity Conflict, 16 January 1981.

Field Manual 100-50, Operations for Nuclear-Capable Units, 12 March 1980.

Field Manual 101-5, Staff Organization and Operations, 25 May 1984.

Field manual 700-80, Logistics, 1 September 1982.

Field Manual 701-58, Planning Logistic Support for Military Operations, 1 September 1982.

Memorandum, Department of the Army, Fort Leavenworth, KS, ATTN: ATZL-SWV, Subject: Observations and Doctrinal Issues from SAMS Corps Operations Exercise, dtd. 9 December 1986.

Syllabus for Lesson 5, "Planning and Conduct of Major Operations and Campaigns." SAMS, USACGSC, AY 86/87, p. 5-11-1.

U.S. Army Intelligence Center and School. "Intelligence Training Notes," Vol. 4, Issue 4-86, October 1986.

U.S. Army Security Agency. "Verbatim Extracts from the Official History of the 23<sup>rd</sup> Headquarters Special Troops, 1 Jul 44-23 Jun 45.

U.S. Army Twelfth Army Group. "Cover and Deception Report ETO," Exhibit '8', Tactical Operations A-E.

U.S. Department of the Army. Pamphlet no. 20-201. Military Improvisation During the Russian Campaign, 29 August 1951.

#### Foreign Documents

British Army Field Manual Volume I: The Fundamentals, Part I, The Application of Force, Army Code #71344 (pt. 1).

#### Interviews

Hughes, Patrick LTC, USA, Advanced Operational Studies Program Fellow, SAMS, USACGSC, Fort Leavenworth, KS, 30 January 1987.

Pierce, Kenneth R. LTC, USA, Chief of Military History Committee, USACGSC, Fort Leavenworth, KS, 30 January 1987.

Sinnreich, Richard Hart COL, USA, Director, School of Advanced Military Studies, USACGSC, Fort Leavenworth, KS, 23 January 1987.

Winton, Harold R. LTC, USA, Deputy Director, SAMS, USACGSC, Fort Leavenworth, KS, 20 February 1987 (Lecture notes).

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